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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,813	02/25/2004	Shunpei Yamazaki	0553-0399	5131

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EXAMINER
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NGUYEN, KEVIN M

ART UNIT	PAPER NUMBER
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2629

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/15/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/786,813

Applicant(s)

YAMAZAKI ET AL.

Examiner

Kevin M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/9/05, 8/16/04</u> .  | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 5, 7, 9 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Dedene et al (US 7,176,861) hereinafter Dedene.

3. As to **claim 1**, Dedence teaches an OLED display device comprising:

a pixel portion having a plurality of light-emitting elements of three kinds (red, green, and blue) having a transparent first electrode, a layer including an organic compound and touching the first electrode, and a transparent second electrode touching the layer including the organic compound (*fig. 3A, col. 6, lines 30-34, lines 54-62 teaches an organic light emitting diode comprises three color elements 6, red, green, and blue for each pixel structure, having a first transparent electrode 4 contacts additional layer organic compound such as an electron transport layer 5, and a second transparent electrode 8 contacts additional layers organic compound such as a hole transport layer 7*); and

and wherein luminescence of three colors of red, green, and blue forms approximately the same triangles in a color coordinate as for both luminescence

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passing a first electrode and luminescence passing a second electrode (*fig. 1, col. 2, lines 39-50 conventionally discloses the luminescence of three color of red, green, and blue forms approximately the same triangles in a color coordinates of CIE chromaticity diagram; Col. 6, lines 59-62 teaches each pixel structure emits white light or any color by controlling the light energy emitted from each color element of said pixel structure and passing through both transparent electrodes 4 and 8*).

As to claim 3, Dedene teaches a light-emitting device according to claim 1, wherein the first electrode and the second electrode are a cathode or an anode of the light-emitting element that the layer including an organic compound is a light-emitting layer, col. 7, lines 21-25.

As to claim 5, Dedence teaches a light-emitting device according to claim 1, wherein number of layers to be passed is different between light transmitted through the first electrode and light transmitted through the second electrode, col. 6, lines 38-44.

As to claim 7, Dedence teaches a light-emitting device according to claims 1, wherein a TFT is connected to the first electrode or the second electrode, col. 6, lines 26-27.

As to claim 9, Dedence teaches a light-emitting device according to claim 1, wherein one of the first electrode and the second electrode is a transparent conductive film, other one of the first electrode and the second electrode is a metal thin film transmitting light (the cathode electrode 29 is a metal thin film, col. 7, lines 21-25).

As to claim 11, Dedence teaches an electronic appliance according to claim 1, wherein the light-emitting device is selected from the group consisting of a video

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camera, a digital camera, a car navigation, a personal computer, or a portable information terminal, col. 3, lines 20-26.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 4, 6, 8, 10 and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dedence in view of Ryu (US 5,507,404).

6. As to **claim 2**, Dedence teaches a light-emitting device (an OLED display device) comprising:

a pixel portion having a plurality of light-emitting elements of white having a transparent first electrode, a layer including an organic compound and touching the first electrode, and a transparent second electrode touching the layer including the organic compound; two color filters which sandwich the light-emitting element (*fig. 3A, col. 6, lines 30-34, lines 54-62 teaches an organic light emitting diode comprises the mixing three color elements 6, red, green, and blue of white for each pixel structure, having a first transparent electrode 4 contacts additional layer organic compound such as an electron transport layer 5, and a second transparent electrode 8 contacts additional layers organic compound such as a hole transport layer 7*); and

and wherein transmitted light of three colors transmitted through each the two color filters form approximately the same triangles in a color coordinate as for both luminescence passing a first electrode and luminescence passing a second electrode (*fig. 1, col. 2, lines 39-50 conventionally discloses the luminescence of three color of red, green, and blue forms approximately the same triangles in a color coordinates of CIE chromaticity diagram; Col. 6, lines 59-62 teaches each pixel structure emits white light or any color by controlling the light energy emitted from each color element of said pixel structure and passing through both transparent electrodes 4 and 8*).

As to claim 4, Dedene teaches a light-emitting device according to claim 2, wherein the first electrode and the second electrode are a cathode or an anode of the light-emitting element that the layer including an organic compound is a light-emitting layer, col. 7, lines 21-25.

As to claim 6, Dedence teaches a light-emitting device according to claim 2, wherein number of layers to be passed is different between light transmitted through the first electrode and light transmitted through the second electrode, col. 6, lines 38-44.

As to claim 8, Dedence teaches a light-emitting device according to claims 1, wherein a TFT is connected to the first electrode or the second electrode, col. 6, lines 26-27.

As to claim 10, Dedence teaches a light-emitting device according to claim 2, wherein one of the first electrode and the second electrode is a transparent conductive film, other one of the first electrode and the second electrode is a metal thin film transmitting light (the cathode electrode 29 is a metal thin film, col. 7, lines 21-25).

As to claim 12, Dedence teaches an electronic appliance according to claim 2, wherein the light-emitting device is selected from the group consisting of a video camera, a digital camera, a car navigation, a personal computer, or a portable information terminal, col. 3, lines 20-26.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Ryu into Dedence to create the claimed invention. It would have been obvious to modify Dedence to have the upper color filter 201 and the lower color filter 102 as taught by Dedence because this would improve the contrast of the image being displayed on the screen of the EL display device (col. 2, lines 37-43 of Ryu).

7. As to **claim 13**, Dedence teaches a light-emitting device comprising:

a pixel portion having a plurality of light-emitting elements of white having a transparent first electrode, a layer including an organic compound and touching the first electrode, and a transparent second electrode touching the layer including the organic compound (*fig. 3A, col. 6, lines 30-34, lines 54-62 teaches an organic light emitting diode comprises the mixing three color elements 6, red, green, and blue of white for each pixel structure, having a first transparent electrode 4 contacts additional layer organic compound such as an electron transport layer 5, and a second transparent electrode 8 contacts additional layers organic compound such as a hole transport layer 7*).

Accordingly, Dedence teaches all of the claimed limitation, except for two color filters which sandwich the light-emitting element of white.

However, Ryu teaches a related EL display device comprising an upper color filter 201, a middle light emitting layer 104, and a lower color filter 102, fig. 2, col. 4, lines 15-20.

Claim 14 shares the same limitations as those of claim 4 and therefore the rationale for rejection will be the same.

Claim 15 shares the same limitations as those of claim 6 and therefore the rationale for rejection will be the same.

Claim 16 shares the same limitations as those of claim 8 and therefore the rationale for rejection will be the same.

Claim 17 shares the same limitations as those of claim 10 and therefore the rationale for rejection will be the same.

Claim 18 shares the same limitations as those of claim 12 and therefore the rationale for rejection will be the same.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Ryu into Dedence to create the claimed invention. It would have been obvious to modify Dedence to have the upper color filter 201, the middle light emitting layer 104, and the lower color filter 102 as taught by Dedence because this would improve the contrast of the image being displayed on the screen of the EL display device (col. 2, lines 37-43 of Ryu).



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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN M. NGUYEN whose telephone number is 571-272-7697. The examiner can normally be reached on MON-THU from 8:00-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, a supervisor RICHARD A. HJERPE can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the Patent Application Information Retrieval system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin M. Nguyen  
Patent Examiner  
Art Unit 2629

KMN  
March 13, 2007